

WHAT IS CLAIMED IS:

1. A method for gatekeeper networking, comprising:
receiving a registration message from a wireless platform serving a mobile station at a home gatekeeper of the mobile station;

5 instructing a telephone subsystem to forward a call directed at a telephonic device associated with the mobile station to one of the home gatekeeper of the mobile station and a roaming number assigned to the mobile station;

receiving a call setup message at the home gatekeeper of the mobile station, the call setup message representing a call involving the mobile station;

identifying a destination of the call using the call setup message;

identifying a routing target associated with the destination; and

communicating the call setup message to the routing target when the home gatekeeper of the mobile station is not a home gatekeeper of the destination.

15 2. The method of Claim 1, wherein the routing target comprises one of a network address of the home gatekeeper of the destination and an interface to the telephone subsystem.

3. The method of Claim 1, further comprising:

20 determining if the destination is a registered mobile station when the home gatekeeper of the mobile station is the home gatekeeper of the destination; and

communicating the call setup message to the telephone subsystem through a gateway when the destination is not a registered mobile station.

25 4. The method of Claim 3, further comprising:

determining if the destination is roaming in an agent gatekeeper zone when the destination is a registered mobile station; and

communicating the call setup message to a wireless platform serving the destination when the destination is not roaming.

5. The method of Claim 4, further comprising communicating the call setup message to an agent gatekeeper serving the agent gatekeeper zone when the destination is roaming.

5 6. The method of Claim 4, further comprising:
triggering a call forward to a roaming number assigned to the destination when the destination is roaming; and
communicating the call setup message to the telephone subsystem through a gateway.

10 7. The method of Claim 6, wherein the mobile station is the destination of the call.

15 8. The method of Claim 1, further comprising:
determining if the call setup message represents a mobile-originated call from the mobile station;
determining if the mobile station is roaming in an agent gatekeeper zone; and
communicating the call setup message to an agent gatekeeper serving the agent gatekeeper zone when the call setup message represents a mobile-originated call and the mobile station is roaming.

20 9. The method of Claim 1, wherein instructing the telephone subsystem to forward the call directed at the telephonic device comprises activating a call forwarding feature in the telephone subsystem using a Computer Telephony Integration (CTI) interface.

25 10. The method of Claim 9, wherein:
the home gatekeeper of the mobile station may communicate voice bearer traffic over a packet network; and
instructing the telephone subsystem to forward the call comprises instructing the telephone subsystem to forward the call to the home gatekeeper of the mobile station.

11. The method of Claim 9, wherein:

the home gatekeeper of the mobile station may not communicate voice bearer traffic over a packet network;

the mobile station is roaming in an agent gatekeeper zone; and

5 instructing the telephone subsystem to forward the call comprises instructing the telephone subsystem to forward the call to the roaming number assigned to the mobile station.

12. The method of Claim 1, further comprising receiving a call forwarding activation message from the wireless platform when the mobile station is roaming in an agent gatekeeper zone, the call forwarding activation message identifying the roaming number assigned to the mobile station.

13. The method of Claim 12, wherein the call forwarding activation message comprises an International Telecommunications Union – Telecommunications (ITU-T) H.450.3 message.

14. The method of Claim 1, wherein identifying the routing target associated with the destination comprises accessing a table associating at least one numbering plan with a routing target.

15. The method of Claim 14, wherein the table comprises one of a plurality of tables; and

further comprising selecting one of the tables based on whether the home gatekeeper of the mobile station may communicate voice bearer traffic over a packet network

16. The method of Claim 1, wherein the wireless platform is associated with a gatekeeper zone served by a gatekeeper other than the home gatekeeper of the mobile station.

17. The method of Claim 1, wherein the call involving the mobile station originates in the telephone subsystem.

18. The method of Claim 1, wherein the registration message comprises an International Telecommunications Union – Telecommunications (ITU-T) H.323 message.

19. The method of Claim 1, wherein the call setup message comprises an
5 International Telecommunications Union – Telecommunications (ITU-T) H.225 message.

20. The method of Claim 1, further comprising:
establishing a bearer channel toward the telephone subsystem;
establishing a logical channel toward the wireless platform; and
bridging the bearer channel and the logical channel.

21. A system for gatekeeper networking, comprising:

at least one computer processable medium; and

logic encoded on the at least one computer processable medium and operable to:

receive a registration message from a wireless platform serving a mobile
5 station at a home gatekeeper of the mobile station;

instruct a telephone subsystem to forward a call directed at a telephonic device
associated with the mobile station to one of the home gatekeeper of the mobile station and a
roaming number assigned to the mobile station;

receive a call setup message at the home gatekeeper of the mobile station, the
10 call setup message representing a call involving the mobile station;

identify a destination of the call using the call setup message;

identify a routing target associated with the destination; and

communicate the call setup message to the routing target when the home
gatekeeper of the mobile station is not a home gatekeeper of the destination.

22. The system of Claim 21, wherein the routing target comprises one of a
network address of the home gatekeeper of the destination and an interface to the telephone
subsystem.

23. The system of Claim 21, wherein the logic is further operable to:

determine if the destination is a registered mobile station when the home gatekeeper
of the mobile station is the home gatekeeper of the destination;

communicate the call setup message to the telephone subsystem through a gateway
when the destination is not a registered mobile station;

25 determine if the destination is roaming in an agent gatekeeper zone when the
destination is a registered mobile station; and

communicate the call setup message to a wireless platform serving the destination
when the destination is not roaming.

24. The system of Claim 23, wherein the logic is further operable to communicate the call setup message to an agent gatekeeper serving the agent gatekeeper zone when the destination is roaming.

5 25. The system of Claim 23, wherein the logic is further operable to:
trigger a call forward to a roaming number assigned to the destination when the destination is roaming; and
communicate the call setup message to the telephone subsystem through a gateway.

10 26. The system of Claim 21, wherein the logic is further operable to:
determine if the call setup message represents a mobile-originated call from the mobile station;
determine if the mobile station is roaming in an agent gatekeeper zone; and
15 communicate the call setup message to an agent gatekeeper serving the agent gatekeeper zone when the call setup message represents a mobile-originated call and the mobile station is roaming.

20 27. The system of Claim 21, wherein the logic is operable to instruct the telephone subsystem to forward the call directed at the telephonic device by activating a call forwarding feature in the telephone subsystem using a Computer Telephony Integration (CTI) interface.

28. The system of Claim 21, wherein the logic is further operable to receive a call forwarding activation message from the wireless platform when the mobile station is roaming in an agent gatekeeper zone, the call forwarding activation message identifying the roaming
25 number assigned to the mobile station.

29. The system of Claim 21, wherein the logic is operable to identify the routing target associated with the destination by accessing a table associating at least one numbering plan with a routing target.

30. The system of Claim 21, wherein the wireless platform is associated with a gatekeeper zone served by a gatekeeper other than the home gatekeeper of the mobile station.

31. The system of Claim 21, wherein the logic is further operable to:
 establish a bearer channel toward the telephone subsystem;
 establish a logical channel toward the wireless platform; and
 bridge the bearer channel and the logical channel.

32. A gatekeeper for a communication system, comprising:

a memory operable to store an association between at least one numbering plan and a home gatekeeper; and

at least one processor operable to:

receive a registration message from a wireless platform serving a mobile station at a home gatekeeper of the mobile station;

instruct a telephone subsystem to forward a call directed at a telephonic device associated with the mobile station to one of the home gatekeeper of the mobile station and a roaming number assigned to the mobile station;

receive a call setup message at the home gatekeeper of the mobile station, the call setup message representing a call involving the mobile station;

identify a destination of the call using the call setup message and the association information;

identify a routing target associated with the destination; and

communicate the call setup message to the routing target when the home gatekeeper of the mobile station is not a home gatekeeper of the destination.

33. The gatekeeper of Claim 32, wherein the routing target comprises one of a network address of the home gatekeeper of the destination and an interface to the telephone subsystem.

34. The gatekeeper of Claim 32, wherein the logic is further operable to:

determine if the destination is a registered mobile station when the home gatekeeper of the mobile station is the home gatekeeper of the destination;

communicate the call setup message to the telephone subsystem through a gateway when the destination is not a registered mobile station;

determine if the destination is roaming in an agent gatekeeper zone when the destination is a registered mobile station; and

communicate the call setup message to a wireless platform serving the destination when the destination is not roaming.

35. The gatekeeper of Claim 34, wherein the logic is further operable to communicate the call setup message to an agent gatekeeper serving the agent gatekeeper zone when the destination is roaming.

5 36. The gatekeeper of Claim 34, wherein the logic is further operable to:
trigger a call forward to a roaming number assigned to the destination when the destination is roaming; and
communicate the call setup message to the telephone subsystem through a gateway.

10 37. The gatekeeper of Claim 32, wherein the logic is further operable to:
determine if the call setup message represents a mobile-originated call from the mobile station;
determine if the mobile station is roaming in an agent gatekeeper zone; and
15 communicate the call setup message to an agent gatekeeper serving the agent gatekeeper zone when the call setup message represents a mobile-originated call and the mobile station is roaming.

20 38. The gatekeeper of Claim 32, wherein the logic is operable to instruct the telephone subsystem to forward the call directed at the telephonic device by activating a call forwarding feature in the telephone subsystem using a Computer Telephony Integration (CTI) interface.

25 39. The gatekeeper of Claim 32, wherein the logic is further operable to receive a call forwarding activation message from the wireless platform when the mobile station is roaming in an agent gatekeeper zone, the call forwarding activation message identifying the roaming number assigned to the mobile station.

30 40. The gatekeeper of Claim 32, wherein the wireless platform is associated with a gatekeeper zone served by a gatekeeper other than the home gatekeeper of the mobile station.

42. A method for gatekeeper networking, comprising:

receiving a registration message from a wireless platform serving a mobile station at a home gatekeeper of the mobile station;

activating a call forwarding feature in a telephone subsystem using a Computer
5 Telephony Integration (CTI) interface to forward a call directed at a telephonic device associated with the mobile station to the home gatekeeper of the mobile station;

receiving a first call setup message at the home gatekeeper of the mobile station, the first call setup message representing a call originating at the mobile station;

identifying a destination of the call using the first call setup message;

identifying a routing target associated with the destination;

communicating the first call setup message to the routing target when the home
10 gatekeeper of the mobile station is not a home gatekeeper of the destination;

communicating the first call setup message to the telephone subsystem through a gateway when the home gatekeeper of the mobile station is the home gatekeeper of the destination and the destination is not a registered mobile station
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communicating the first call setup message to a wireless platform serving the destination when the home gatekeeper of the mobile station is the home gatekeeper of the destination and the destination is a registered non-roaming mobile station;

communicating the first call setup message to a first agent gatekeeper serving a first
20 agent gatekeeper zone when the home gatekeeper of the mobile station is the home gatekeeper of the destination, the destination is a registered mobile station, and the destination is roaming in the first agent gatekeeper zone;

receiving a second call setup message at the home gatekeeper of the mobile station, the second call setup message representing a call directed at the mobile station;

communicating the second call setup message to a second agent gatekeeper serving a
25 second agent gatekeeper zone when the mobile station is roaming in the second agent gatekeeper zone;

communicating the second call setup message to the wireless platform when the mobile station is not roaming; and

communicating the second call setup message to the telephone subsystem through the gateway if the mobile station has deregistered with the home gatekeeper of the mobile station.

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43. A method for gatekeeper networking, comprising:

receiving a registration message from a wireless platform serving a mobile station at a home gatekeeper of the mobile station;

receiving a call forwarding activation message from the wireless platform if the mobile station is roaming in an agent gatekeeper zone, the call forwarding activation message identifying a roaming number assigned to the mobile station;

activating a call forwarding feature in a telephone subsystem using a Computer Telephony Integration (CTI) interface to forward a call directed at a telephonic device associated with the mobile station to one of the home gatekeeper of the mobile station and the roaming number assigned to the mobile station;

receiving a first call setup message at the home gatekeeper of the mobile station, the first call setup message representing a call originating at the mobile station;

determining if the mobile station is roaming in the agent gatekeeper zone;

communicating the call setup message to an agent gatekeeper serving the agent gatekeeper zone when the mobile station is roaming;

identifying a destination of the call using the first call setup message;

identifying a routing target associated with the destination;

communicating the first call setup message to the routing target when the home gatekeeper of the mobile station is not a home gatekeeper of the destination;

communicating the first call setup message to the telephone subsystem through a gateway when the home gatekeeper of the mobile station is the home gatekeeper of the destination and the destination is not a registered mobile station;

communicating the first call setup message to a wireless platform serving the destination when the home gatekeeper of the mobile station is the home gatekeeper of the destination and the destination is a registered non-roaming mobile station;

triggering a call forward to a roaming number assigned to the destination and communicating the first call setup message to the telephone subsystem through a gateway when the home gatekeeper of the mobile station is the home gatekeeper of the destination and the destination is roaming;

receiving a second call setup message at the home gatekeeper of the mobile station, the second call setup message representing a call directed at the mobile station;

communicating the second call setup message to the agent gatekeeper when the mobile station is roaming;

communicating the second call setup message to the wireless platform when the mobile station is not roaming; and

- 5 communicating the second call setup message to the telephone subsystem through the gateway if the mobile station has deregistered with the home gatekeeper of the mobile station.

44. A system for gatekeeper networking, comprising:

at least one computer processable medium; and

logic encoded on the at least one computer processable medium and operable to:

receive a registration message from a wireless platform serving a mobile
station at a home gatekeeper of the mobile station;

activate a call forwarding feature in a telephone subsystem using a Computer
Telephony Integration (CTI) interface to forward a call directed at a telephonic device
associated with the mobile station to the home gatekeeper of the mobile station;

receive a first call setup message at the home gatekeeper of the mobile station,
the first call setup message representing a call originating at the mobile station;

identify a destination of the call using the first call setup message;

identify a routing target associated with the destination;

communicate the first call setup message to the routing target when the home
gatekeeper of the mobile station is not a home gatekeeper of the destination;

communicate the first call setup message to the telephone subsystem through a
gateway when the home gatekeeper of the mobile station is the home gatekeeper of the
destination and the destination is not a registered mobile station

communicate the first call setup message to a wireless platform serving the
destination when the home gatekeeper of the mobile station is the home gatekeeper of the
destination and the destination is a registered non-roaming mobile station;

communicate the first call setup message to a first agent gatekeeper serving a
first agent gatekeeper zone when the home gatekeeper of the mobile station is the home
gatekeeper of the destination, the destination is a registered mobile station, and the
destination is roaming in the first agent gatekeeper zone;

receive a second call setup message at the home gatekeeper of the mobile
station, the second call setup message representing a call directed at the mobile station;

communicate the second call setup message to a second agent gatekeeper
serving a second agent gatekeeper zone when the mobile station is roaming in the second
agent gatekeeper zone;

communicate the second call setup message to the wireless platform when the
mobile station is not roaming; and

communicate the second call setup message to the telephone subsystem through the gateway if the mobile station has deregistered with the home gatekeeper of the mobile station.

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45. A system for gatekeeper networking, comprising:

at least one computer processable medium; and

logic encoded on the at least one computer processable medium and operable to:

receive a registration message from a wireless platform serving a mobile
5 station at a home gatekeeper of the mobile station;

receive a call forwarding activation message from the wireless platform if the
mobile station is roaming in an agent gatekeeper zone, the call forwarding activation message
identifying a roaming number assigned to the mobile station;

activate a call forwarding feature in a telephone subsystem using a Computer
10 Telephony Integration (CTI) interface to forward a call directed at a telephonic device
associated with the mobile station to one of the home gatekeeper of the mobile station and the
roaming number assigned to the mobile station;

receive a first call setup message at the home gatekeeper of the mobile station,
the first call setup message representing a call originating at the mobile station;

determine if the mobile station is roaming in the agent gatekeeper zone;
15 communicate the call setup message to an agent gatekeeper serving the agent
gatekeeper zone when the mobile station is roaming;

identify a destination of the call using the first call setup message;

identify a routing target associated with the destination;

20 communicate the first call setup message to the routing target when the home
gatekeeper of the mobile station is not a home gatekeeper of the destination;

communicate the first call setup message to the telephone subsystem through a
gateway when the home gatekeeper of the mobile station is the home gatekeeper of the
destination and the destination is not a registered mobile station;

25 communicate the first call setup message to a wireless platform serving the
destination when the home gatekeeper of the mobile station is the home gatekeeper of the
destination and the destination is a registered non-roaming mobile station;

trigger a call forward to a roaming number assigned to the destination and
communicating the first call setup message to the telephone subsystem through a gateway
30 when the home gatekeeper of the mobile station is the home gatekeeper of the destination and
the destination is roaming;

receive a second call setup message at the home gatekeeper of the mobile station, the second call setup message representing a call directed at the mobile station;

communicate the second call setup message to the agent gatekeeper when the mobile station is roaming;

5 communicate the second call setup message to the wireless platform when the mobile station is not roaming; and

 communicate the second call setup message to the telephone subsystem through the gateway if the mobile station has deregistered with the home gatekeeper of the mobile station.

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46. A gatekeeper for a communication system, comprising:

a memory operable to store an association between at least one numbering plan and a home gatekeeper; and

at least one processor operable to:

5 receive a registration message from a wireless platform serving a mobile station at a home gatekeeper of the mobile station;

activate a call forwarding feature in a telephone subsystem using a Computer Telephony Integration (CTI) interface to forward a call directed at a telephonic device associated with the mobile station to the home gatekeeper of the mobile station;

10 receive a first call setup message at the home gatekeeper of the mobile station, the first call setup message representing a call originating at the mobile station;

identify a destination of the call using the first call setup message and the association information;

identify a routing target associated with the destination;

15 communicate the first call setup message to the routing target when the home gatekeeper of the mobile station is not a home gatekeeper of the destination;

communicate the first call setup message to the telephone subsystem through a gateway when the home gatekeeper of the mobile station is the home gatekeeper of the destination and the destination is not a registered mobile station

20 communicate the first call setup message to a wireless platform serving the destination when the home gatekeeper of the mobile station is the home gatekeeper of the destination and the destination is a registered non-roaming mobile station;

25 communicate the first call setup message to a first agent gatekeeper serving a first agent gatekeeper zone when the home gatekeeper of the mobile station is the home gatekeeper of the destination, the destination is a registered mobile station, and the destination is roaming in the first agent gatekeeper zone;

receive a second call setup message at the home gatekeeper of the mobile station, the second call setup message representing a call directed at the mobile station;

30 communicate the second call setup message to a second agent gatekeeper serving a second agent gatekeeper zone when the mobile station is roaming in the second agent gatekeeper zone;

communicate the second call setup message to the wireless platform when the mobile station is not roaming; and

communicate the second call setup message to the telephone subsystem through the gateway if the mobile station has deregistered with the home gatekeeper of the mobile station.

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47. A gatekeeper for a communication system, comprising:

a memory operable to store an association between at least one numbering plan and a home gatekeeper; and

at least one processor operable to:

receive a registration message from a wireless platform serving a mobile station at a home gatekeeper of the mobile station;

receive a call forwarding activation message from the wireless platform if the mobile station is roaming in an agent gatekeeper zone, the call forwarding activation message identifying a roaming number assigned to the mobile station;

activate a call forwarding feature in a telephone subsystem using a Computer Telephony Integration (CTI) interface to forward a call directed at a telephonic device associated with the mobile station to one of the home gatekeeper of the mobile station and the roaming number assigned to the mobile station;

receive a first call setup message at the home gatekeeper of the mobile station, the first call setup message representing a call originating at the mobile station;

determine if the mobile station is roaming in the agent gatekeeper zone;

communicate the call setup message to an agent gatekeeper serving the agent gatekeeper zone when the mobile station is roaming;

identify a destination of the call using the first call setup message and the association information;

identify a routing target associated with the destination;

communicate the first call setup message to the routing target when the home gatekeeper of the mobile station is not a home gatekeeper of the destination;

communicate the first call setup message to the telephone subsystem through a gateway when the home gatekeeper of the mobile station is the home gatekeeper of the destination and the destination is not a registered mobile station;

communicate the first call setup message to a wireless platform serving the destination when the home gatekeeper of the mobile station is the home gatekeeper of the destination and the destination is a registered non-roaming mobile station;

trigger a call forward to a roaming number assigned to the destination and communicating the first call setup message to the telephone subsystem through a gateway

when the home gatekeeper of the mobile station is the home gatekeeper of the destination and the destination is roaming;

receive a second call setup message at the home gatekeeper of the mobile station, the second call setup message representing a call directed at the mobile station;

5 communicate the second call setup message to the agent gatekeeper when the mobile station is roaming;

communicate the second call setup message to the wireless platform when the mobile station is not roaming; and

communicate the second call setup message to the telephone subsystem through the gateway if the mobile station has deregistered with the home gatekeeper of the mobile station.

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48. A method for gatekeeper networking, comprising:

receiving a call setup message at a home gatekeeper of a mobile station, the call setup message representing a call involving the mobile station;

determining whether voice traffic may be transported across a packet network coupled
5 to the home gatekeeper of the mobile station;

identifying a destination of the call using the call setup message;

identifying a routing target associated with the destination, the routing target comprising a network address of a home gatekeeper of the destination if voice traffic may be transported across the packet network and the home gatekeeper of the mobile station is different than the home gatekeeper of the destination, the routing target comprising an interface to the telephone subsystem if voice traffic may not be transported across the packet network and the home gatekeeper of the mobile station is different than the home gatekeeper of the destination; and

communicating the call setup message to the routing target.

49. A gatekeeper for a communication system, comprising:

a memory operable to store an association between at least one numbering plan and a home gatekeeper; and

at least one processor operable to:

5 receive a call setup message at a home gatekeeper of a mobile station, the call setup message representing a call involving the mobile station;

determine whether voice traffic may be transported across a packet network coupled to the home gatekeeper of the mobile station;

identify a destination of the call using the call setup message;

10 identify a routing target associated with the destination, the routing target comprising a network address of a home gatekeeper of the destination if voice traffic may be transported across the packet network and the home gatekeeper of the mobile station is different than the home gatekeeper of the destination, the routing target comprising an interface to the telephone subsystem if voice traffic may not be transported across the packet
15 network and the home gatekeeper of the mobile station is different than the home gatekeeper of the destination; and

communicate the call setup message to the routing target.